

## 2..Documentation Document:

5-Joined Book and Loan tables to calculate how often each book is borrowed.

**JOIN Loan l ON b.BookID = l.BookID**

**Used a LEFT JOIN with Review so books**

**LEFT JOIN Review r ON b.BookID = r.BookID**

**Applied aggregate functions:**

**Count(l.LoanID) AS TotalLoans,**

**AVG(r.Rating) AS AvgRating**

**Used HAVING COUNT(l.LoanID) >= 3**

**It combines usage data (loans) with user sentiment (ratings) to give a balanced**

**6- JOIN Loan l ON m.MemberID = l.MemberID**

**JOIN Book b ON l.BookID = b.BookID**

**LEFT JOIN Review r ON m.MemberID**

**ORDER BY m.FullName, l.LoanDate**

**Ordered by member name and loan date**

### **Query 7**

- **Joined Book and Loan .**
- **Used a LEFT JOIN with Payment so loans without fines are still counted.**
- **Applied ISNULL(p.Amount, 0)**

**Example: sp\_IssueBook**

- Prevents issuing a book that is not available
- Stops issuing if the member already has maximum allowed loans
- Ensures book status updates correctly.

Any assumptions you made

- Members can borrow books from any library
- Not every loan results in a fine
- Reviews are optional for members

Testing Evidence

Successful Execution

EXEC sp\_IssueBook

@MemberID = 1,

@BookID = 5,

@DueDate = '2025-01-15';

- Procedure executed successfully
- Book issued to member
- No error message displayed

Book Not Available (Error Handling)

- Procedure stops execution
- Error message displayed

